

Agriculture, in the form of row crops, orchards and vineyards, is the primary land use in the region. The Kern County General Plan designates most areas within the AEWS D service area as “intensive agriculture.” Supplemental irrigation is required for these activities as the area receives an average of only 8.5 inches of rainfall per year. Other agricultural uses, while not directly dependent on irrigation for production, are also consistent with the intensive agriculture designation. The minimum parcel size is 20 acres and permitted uses include, but are not limited to, irrigated cropland, orchards, vineyards, horse ranches, beekeeping, ranch and farm facilities, and related uses. One single-family dwelling unit is permitted per 20-acre parcel (KCPD 2007).

#### ***Improvement District #4***

ID4, located within the City of Bakersfield, was formed to provide a supplemental water supply for portions of the metropolitan Bakersfield area through the importation of water from the SWP. The imported supply is delivered directly to recharge areas for direct replenishment of the underlying groundwater aquifer or to the Henry C. Garnett Water Purification Plant for treatment and delivery to in-district water purveyors. ID4 provides for mainly municipal and industrial use, and very little is dedicated to agriculture.

### **3.3.2 Environmental Consequences**

#### ***No Action Alternative***

Under the No Action Alternative, there would be no changes to existing land use conditions in either AEWS D or ID4 since conditions would remain the same.

#### ***Proposed Action***

Under the Proposed Action, CVP supplies made available for delivery to ID4 would be surplus to AEWS D’s immediate operational needs. The delivery of 10,000 AF of its CVP supplies would still leave AEWS D with sufficient water supplies to meet their in-district water demands, so farmers dependent on water for irrigation would not be impacted and land use conditions within AEWS D would remain the same.

ID4 intends to use the CVP water for either groundwater replenishment, municipal, industrial, and/or drinking water purposes. Ultimately, the CVP water would supplement ID4’s SWP supply and would not generate any new housing nor would it result in new permanent population growth that would exceed official regional or local population projections in its service area. Therefore, the Proposed Action would not have any impacts on existing land use.

## **3.4 Cultural Resources**

A cultural resource is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government’s responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (NRHP). Those resources that are on or eligible for inclusion in the NRHP are referred to as historic properties.



The Section 106 process is outlined in the Federal regulations at 36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking will have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking would have on historic properties, and consult with the State Historic Preservation Office, to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

#### **3.4.1 Affected Environment**

The San Joaquin Valley is rich in historical and prehistoric cultural resources. Cultural resources in this area are generally prehistoric in nature and include remnants of native human populations that existed before European settlement. Prior to the 18<sup>th</sup> Century, many Native American tribes inhabited the Central Valley. It is possible that many cultural resources lie undiscovered across the valley. The San Joaquin Valley supported extensive populations of Native Americans, principally the Northern Valley Yokuts, in the prehistoric period. Cultural studies in the San Joaquin Valley have been limited. The conversion of land and intensive farming practices over the last century may have destroyed many Native American cultural sites.

#### **3.4.2 Environmental Consequences**

##### ***No Action Alternative***

Under the No Action Alternative, there would be no impacts to cultural resources since there would be no modifications to existing conveyance systems and no new construction that would result in any ground disturbance. Conditions related to cultural resources would remain the same as existing conditions.

##### ***Proposed Action***

The Proposed Action is administrative in nature and is the type of activity that has no potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). There would be no modification of water conveyance facilities and no activities that would result in ground disturbance. Because there is no potential to affect historic properties, no cultural resources would be impacted as a result of implementing the Proposed Action.

### **3.5 Indian Trust Assets**

ITA are legal interests in assets that are held in trust by the United States (U.S.) Government for federally recognized Indian tribes or individuals. The trust relationship usually stems from a treaty, executive order, or act of Congress. The Secretary of the Interior is the trustee for the U.S. on behalf of federally recognized Indian tribes. "Assets" are anything owned that holds monetary value. "Legal interests" means there is a property interest for which there is a legal remedy, such a compensation or injunction, if there is improper interference. ITA cannot be



sold, leased or otherwise alienated without the U.S.' approval. Assets can be real property, physical assets, or intangible property rights, such as a lease, or right to use something; which may include lands, minerals and natural resources in addition to hunting, fishing, and water rights. Indian reservations, rancherias, and public domain allotments are examples of lands that are often considered trust assets. In some cases, ITA may be located off trust land.

Reclamation shares the Indian trust responsibility with all other agencies of the Executive Branch to protect and maintain ITA reserved by or granted to Indian tribes, or Indian individuals by treaty, statute, or Executive Order.

### **3.5.1 Affected Environment**

There are no ITAs, Indian Reservations, or public domain allotments found within the water districts involved, nor is there such a property interest in the lands designated to receive the water proposed in this action.

### **3.5.2 Environmental Consequences**

#### ***No Action Alternative***

Under the No Action Alternative, there are no impacts to ITA since conditions would remain the same as exiting conditions.

#### ***Proposed Action***

There are no tribes possessing legal property interests held in trust by the U.S. in the water involved with this action, nor is there such a property interest in the lands designated to receive the water proposed in this action. There are no ITA, Indian Reservations, or public domain allotments found within the water districts involved. The Proposed would not affect or interfere with the observation of religious or other ceremonies associated with ITA.

Approval of the Proposed Action would not involve any construction or modifications and would utilize existing conveyance facilities; therefore, activities associated with the Proposed Action would not affect ITA.

## **3.6 Socioeconomic Resources**

### **3.6.1 Affected Environment**

The agricultural industry significantly contributes to the overall economic stability of the San Joaquin Valley. The CVP allocations each year allow farmers to plan for the types of crops to grow and to secure loans to purchase supplies. Depending upon the variable hydrological and economical conditions, water transfers and exchanges could be prompted. The economic variances may include fluctuating agricultural prices, insect infestation, changing hydrologic conditions, increased fuel and power costs.



### **3.6.2 Environmental Consequences**

#### ***No Action Alternative***

Under the No Action Alternative, AEWS D would retain its CVP water and continue to use the water as approved in its contract to maintain and operate its facilities as has historically occurred. ID4 would have to find other sources of water to supplement its SWP supplies in order to either recharge the groundwater subbasin and/or provide urban water uses to its customers. Socioeconomic conditions would not be impacted in the vicinities of AEWS D and ID4 since conditions would remain the same as existing conditions.

#### ***Proposed Action***

The Proposed Action would result in a shift or reduction of energy use which would save AEWS D the energy and cost associated with otherwise pumping groundwater. AEWS D's ability to deliver 10,000 AF to ID4 still leaves the district with sufficient water supplies for its farmers, so agriculture-dependent business and jobs would not be impacted.

With additional water to supplement its SWP supply, conditions in ID4 would remain the same as existing conditions and there would be no impacts to socioeconomic resources.

## **3.7 Environmental Justice**

Environmental justice refers to the fair treatment of peoples of all races, income levels, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no person or group of people should shoulder a disproportionate share of negative impacts resulting from the execution of Federal programs. Executive Order 12898, dated February 11, 1994, establishes the achievement of environmental justice as a Federal agency priority. The memorandum accompanying the order directs heads of departments and agencies to analyze the environmental effects of federal actions, including human health, economic, and social effects when required by National Environmental Policy Act, and to address significant and adverse effects on minority and low-income communities.

### **3.7.1 Affected Environment**

The market for seasonal workers on local farms draws thousands of migrant workers, commonly of Hispanic origin from Mexico and Central America. Agriculture and related businesses are the main industry in region, which provides employment opportunities for these minority and/or disadvantaged populations. The areas around the districts have stable economies based on fruits and vegetable products grown locally. In addition, there are small communities located within the region where minority and/or disadvantaged populations have taken up as residences.

### **3.7.2 Environmental Consequences**

#### ***No Action Alternative***

The No Action Alternative may result in a slight adverse impact to minority or low-income populations in ID4. Without supplemental water, there could be a decrease in farm-related jobs and drinking water, which these communities rely upon.



### **Proposed Action**

Under the Proposed Action, CVP water so delivered to ID4 would primarily serve to help secure the district's water supply. Implementation of the Proposed Action would ensure the viability of water supplies in ID4; therefore, ensuring the viability of farm labor jobs and provide for drinking water to communities within the district. AEWS D would still be left with sufficient water to meet its internal irrigation demand, thus maintaining agriculture as has historically occurred. The unemployment rate near AEWS D suggests that any actions that maintain seasonal jobs should be considered beneficial.

The Proposed Action would not cause dislocation, changes in employment, or increase flood, drought, or disease. The Proposed Action does not propose any features that would result in adverse human health or environmental effects, have any physical effects on minority or low-income populations, and/or alter socioeconomic conditions of populations that reside or work near the Proposed Action. Therefore, there would be no adverse impacts to environmental justice.

## **3.8 Air Quality**

Section 176 (c) of the Clean Air Act (CAA) (42 U.S.C. 7506 (c)) requires that any entity of the Federal government that engages in, supports, or in any way provided financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan (SIP) required under Section 110 (a) of the CAA (42 U.S.C. 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with a SIP's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements will, in fact conform to the applicable SIP before the action is taken.

On November 30, 1993, the Environmental Protection Agency promulgated final general conformity regulations at 40 CFR 93 Subpart B for all federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed federal action in a non-attainment or maintenance area if the total of direct and indirect emissions of the relevant criteria pollutants and precursor pollutant caused by the Proposed Action equal or exceed certain *de minimis* amounts thus requiring the federal agency to make a determination of general conformity.

### **3.8.1 Affected Environment**

The project area is located within the San Joaquin Valley Air Basin (SJVAB) which is the second largest air basin in California. Despite years of improvements, the SJVAB does not meet all State and Federal health-based air quality standards. The governing body over the SJVAB, the San Joaquin Valley Air Pollution Control District (SJVAPCD), has adopted stringent control measures to reduce emissions and improve overall air quality within the SJVAB. The following *de minimis* thresholds for the region covering the project area within the SJVAB are presented in Table 2 below:



<b>Table 2.</b> <b>San Joaquin Valley Attainment Status and Emissions Thresholds for Federal Conformity Determinations</b>			
<b>Pollutant</b>	<b>Federal Attainment Status<sup>a</sup></b>	<b>(tons/year)<sup>b</sup></b>	<b>(pounds/day)</b>
Volatile organic compounds (VOC) (as an ozone precursor)	Nonattainment/Serious (8-hour ozone)	50	274
Nitrous oxides (NO <sub>x</sub> ) (as an ozone precursor)	Attainment/Unclassified	50	274
Particulate matter with a diameter of less than 10 microns (PM <sub>10</sub> )	Attainment	100	548
Carbon monoxide (CO)	Attainment/Unclassified	100	548

<sup>a</sup>SJVAPCD 2009a

<sup>b</sup>40 CFR 93.153

### 3.8.2 Environmental Consequences

#### ***No Action Alternative***

Under the No Action Alternative, conditions would remain the same as the existing conditions and impacts to air quality are not anticipated.

#### ***Proposed Action***

Under the Proposed Action, movement of water between AEWS and ID4 would be done via gravity flow and/or pumped using electric motors which have no emissions and therefore, a conformity analysis is not required under the CAA.

The Proposed Action would not involve any construction or land disturbing activities that could lead to fugitive dust emissions and/or exhaust emissions associated with the operations of heavy machinery; therefore, there would be no impacts to air quality.

### 3.9 Cumulative Impacts

As in the past, hydrological conditions and other factors are likely to result in fluctuating water supplies and this drives requests for water service actions. Water districts aim to provide water to their customers based on available water supplies and timing, all while attempting to minimize costs. Farmers irrigate and grow crops based on these conditions and factors, and a myriad of water service actions are approved and executed each year to facilitate water needs. Each water service transaction involving Reclamation undergoes environmental review prior to approval. In addition, the Proposed Action is a temporary approval; therefore, when added to other water service actions, the Proposed Action would not result in cumulative adverse impacts to water resources beyond historical fluctuations and conditions.

The Proposed Action, when added to other similar existing or proposed actions, do not contribute to significant increases or decreases in environmental conditions. The Proposed Action is temporary in nature, and was found to have no impacts on land use, biological resources, cultural resources, ITA, socioeconomic resources, and air quality; therefore, there is no contribution to cumulative impacts on these resources areas.

Slight beneficial impacts to environmental justice and water resources are within the historical variations and would not contribute to cumulative impacts. Overall, there would be no cumulative impacts caused by the Proposed Action.



## **Section 4 Consultation and Coordination**

Several federal laws, permits, licenses and policy requirements have directed, limited or guided the National Environmental Policy Act analysis and decision making process of this EA.

### **4.1 Fish and Wildlife Coordination Act (16 USC § 651 et seq.)**

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The implementation of the Central Valley Project Improvement Act, of which this action is a part, has been jointly analyzed by Reclamation and the USFWS and is being jointly implemented. The Proposed Action would not involve any construction projects; therefore, the FWCA would not apply.

### **4.2 Endangered Species Act (16 USC § 1531 et seq.)**

Section 7 of the ESA requires Federal agencies to ensure that all federally associated activities within the United States do not jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of the critical habitat of these species.

Reclamation has determined that the Proposed Action would have no affect on any Federally listed threatened and endangered species or their critical habitats. This determination is based on conclusions in Section 3.2.2 of this EA and consultation with the USFWS would not be required.

### **4.3 National Historic Preservation Act (16 USC § 470 et seq.)**

The NHPA of 1966, as amended, is the primary Federal legislation that outlines the Federal Governments' responsibility to consider the affects of their actions on historic properties. The 36 CFR Part 800 regulations that implement Section 106 of the NHPA describe how Federal agencies address these effects. Additionally, Native American human remains, cultural objects, and objects of cultural patrimony are protected under the Native American Graves Protection and Repatriation Act of 1990 (25 USC 32) and its implementing regulation outlined at 43 CFR Part 10. The Archaeological Resources Protection Act of 1979 (16 USC 470aa), as amended, and its implementing regulations at 43 CFR 7, protects archaeological resources on Federal land.

The term "cultural resources" is used to describe archaeological sites, illustrating evidence of past human use of the landscape; the built environment, represented by structures such as dams, roadways, and buildings; and traditional resources, including, but not limited to, structures, objects, districts, and sites. A cultural resource that is greater than 50 years old qualifies for consideration as a historic property. Historic properties are defined as those cultural resources listed, or eligible for listing, on the NRHP. The criteria for NRHP eligibility is outlined at 36 CFR Part 60.4.



The Proposed Action involves redistributing water through existing facilities. There would be no modification of water conveyance facilities and no activities that would result in new construction or ground disturbance. There would be no impacts to cultural resources.

#### **4.4 Indian Trust Assets**

ITA are legal interests in property held in trust by the U.S. for federally-recognized Indian tribes or individual Indians. An Indian trust has three components: (1) the trustee, (2) the beneficiary, and (3) the trust asset. ITA can include land, minerals, federally-reserved hunting and fishing rights, federally-reserved water rights, and in-stream flows associated with trust land.

Beneficiaries of the Indian trust relationship are federally-recognized Indian tribes with trust land; the U.S. is the trustee. By definition, ITA cannot be sold, leased, or otherwise encumbered without approval of the U.S. The characterization and application of the U.S. trust relationship have been defined by case law that interprets Congressional acts, executive orders, and historic treaty provisions.

There are no tribes possessing legal property interests held in trust by the U.S. in the water involved with this action, nor is there such a property interest in the lands designated to receive the water proposed in this action. The Proposed Action would not affect or interfere with the observation of religious or other ceremonies associated with ITA; therefore, there would be no impacts to ITA.

#### **4.5 Migratory Bird Treaty Act (16 USC § 703 et seq.)**

The MBTA implements various treaties and conventions between the U.S., Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the MBTA provides that it is unlawful to pursue, hunt, take, capture or kill, possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the MBTA, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

The Proposed Action would not change the land use patterns of the cultivated or fallowed fields that do have some value to listed species of birds protected by the MBTA; therefore, the Proposed Action would have no effect on birds protected by the MBTA.

#### **4.6 Executive Order 11988 – Floodplain Management and Executive Order 11990 – Protection of Wetlands**

Executive Order 11988 requires Federal agencies to prepare floodplain assessments for actions located within or affecting flood plains, and similarly, Executive Order 11990 places similar requirements for actions in wetlands.



The Proposed Action would deliver water to ID4 for groundwater recharge and/or urban use and would not affect wetlands and/or floodplains.

#### **4.7 Clean Air Act (42 USC § 176 et seq.)**

Section 176 (c) of the CAA (42 USC 7506 (c)) requires that any entity of the Federal government that engages in, supports, or in any way provided financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable SIP required under Section 110 (a) of the CAA (42 USC 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with a SIP's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the conformity requirements will, in fact conform to the applicable SIP before the action is taken.

The Proposed Action would not involve any construction or land disturbing activities that could lead to fugitive dust emissions and/or exhaust emissions associated with the operations of heavy machinery. The water would either be conveyed by gravity or pumped via electric motors. The air quality emissions from electrical power have been considered in environmental documentation for the generating power plant. There are no emissions from electrical motors and therefore a conformity analysis is not required under the CAA and there would be no impact on air quality.

#### **4.8 Clean Water Act (16 USC § 703 et seq.)**

##### **Section 401**

Section 401 of the Clean Water Act (CWA) (33 USC § 1311) prohibits the discharge of any pollutants into navigable waters, except as allowed by permit issued under sections 402 and 404 of the CWA (33 USC § 1342 and 1344). If new structures (e.g., treatment plants) are proposed, that would discharge effluent into navigable waters, relevant permits under the CWA would be required for the project applicant(s). Section 401 requires any applicant for an individual U.S. Army Corps of Engineers (Corps) dredge and fill discharge permit to first obtain certification from the state that the activity associated with dredging or filling would comply with applicable state effluent and water quality standards. This certification must be approved or waived prior to the issuance of a permit for dredging and filling.

No pollutants would be discharged into any navigable waters under the Proposed Action so no permits under Section 401 of the CWA are required.

##### **Section 404**

Section 404 of the CWA authorizes the Corps to issue permits to regulate the discharge of "dredged or fill materials into waters of the United States" (33 USC § 1344). No activities such as dredging or filling of wetlands or surface waters would be required for implementation of the Proposed Action, therefore permits obtained in compliance with CWA section 404 are not required.



## Section 5 List of Preparers and Reviewers

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## Section 6 References

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